Reviewer's report

Title: Self-Reported Recall and Daily Diary-Recorded Measures of Weight Monitoring Adherence: Associations with Heart Failure-Related Hospitalization

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Reviewer: ARGYRIOS NTALIANIS

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In the present prospective cohort, the impact on annual heart failure-related hospitalizations of two different methods evaluating the weight monitoring adherence, the self-reported and diary-recorded weight monitoring, was investigated in heart failure patients. All study patients received a special education session and several calls focusing on the importance of daily weight monitoring, taking proper diuretic doses, medication adherence, salt reduction and exercise and they were also provided a digital bathroom scale and a diary to record their daily weights. Weighing at least once a day was considered as an optimal adherence for the self-reported weight monitoring, and ≥80% completion of daily dairies was considered as an optimal adherence for the dairy-recorded weight monitoring. An adjudication committee assessed all the hospitalizations reported in order to characterize them as ‘heart failure-related’ or not.

In total, 216 pts were included in the final analysis. The main finding of the study is that ≥80% adherence to a daily-recorded measure is associated with fewer heart failure-related hospitalizations although a self-reported weight monitoring adherence is not.

The point the study sticks on is very interesting, important and practical. The methodology, analysis and presentation of the data are satisfactory. The language of the paper is excellent.

Minor essential revisions:

1. Additional data on the emergency department/outpatient heart failure clinic visits for heart failure decompensation would be of great interest to report, if available.

2. Although the number of the patients in the daily-recorded ≥80% and <80% weighing adherence subgroups is well balanced (n=107 vs n=109 respectively), there is significant imbalance in the number of the patients in the self-reported weighing subgroups (n=184 vs n=32). The lack of any statistical significance after comparing the heart failure-related hospitalizations in the latter subgroups might have been owed to this imbalance. It is advisable for the authors to report it in the limitations of the study.

3. The comparison between self-reported and diary-recorded weight monitoring is not direct (i.e. randomized assignment in a self-reported and a diary-recorded weight monitoring group) but indirect. It should be prudent for the authors to make a comment in the limitations of the study.
4. It is unclear whether the study patients are consecutive or not. This information should be added in the manuscript.

5. 72% of the patients studied, were taught how to adjust their diuretic doses based on their daily weights. Was there a normal distribution of such patients in the self-reported and diary-recorded weight monitoring subgroups? Self-adjustment of the diuretic doses could prevent hospitalizations and could have acted as a confounding factor. Reporting the relevant numbers in table 1, could add more value in the manuscript.

6. Separate analysis of the subgroup of the patients with systolic heart failure, especially if the overall sample was bigger, could have provided very interesting data.

7. The number of the patients on aldosterone antagonists and diuretics (type and dose) is important to report.

8. The discussion of the manuscript might be reduced to a shorter one.

Comments to the Editor
The present manuscript deals elegantly with a hot subject, some of the different methods to improving the weight monitoring adherence and morbidity in patients with heart failure. The paper is well written and despite its inherent limitations is of interest for the readership of your journal.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
'I declare that I have no competing interests'